

What is claimed is:

1. An improved corona generator structure, comprising essentially of:

an insulating sleeve possessing an insulating effect;

5 a ground tube body having a connecting plate extending from an end thereof, wherein said ground tube body is sheathed within said insulating sleeve, and said connecting plate thereon penetrates outside said insulating sleeve;

a sealing lid having a salient protruded from a top edge thereof, said salient being provided with a port, wherein said sealing lid is coupled within said insulating sleeve and connected to an end portion of said ground tube body such
10 that said connecting plate of said ground tube body penetrates through and outside said port, and an insulating layer is coated onto the top surfaces of said insulating sleeve so as to seal said sealing lid and said ground tube body in said insulating sleeve;

at least one piece of high voltage electrode plate uniformly provided with a
15 plurality of apertures and a plurality of venting ports, an inner side of said aperture being engaged with a spacer, a conductive plate being extended from an end of said high voltage electrode plate, wherein said high voltage electrode plate is disposed onto an external surface of said insulating sleeve, and said conductive plate thereon penetrates through and outside said insulating sleeve; and

20 a first and a second retaining sleeves provided with two multiple wind-guiding channels corresponding to each other on side peripheries thereof, two inserting ports on opposite surface thereof, and a retaining port on a proper position of said first retaining sleeve, wherein said first and said second retaining sleeves are coupled with both end of said insulating sleeve such that said salient of
25 said sealing lid penetrates through and outside said retaining port of said first

retaining sleeve, and said conductive plate of said high voltage electrode plate penetrates outside said inserting ports of said first retaining sleeve such that both end portions of said high voltage electrode plate are clamped by said first and said second retaining sleeves so as to be firmly positioned on a surface of said
5 insulating sleeve.

2. The improved corona generator structure according to claim 1, wherein said insulating sleeve is a glassy sleeve, a plastic sleeve or other insulating sleeve.

3. The improved corona generator structure according to claim 1, wherein said ground tube body is a hollow tube body.

10 4. The improved corona generator structure according to claim 1, wherein said sealing lid is provided with a recess on a side thereof, said recess being disposed corresponding to said port of said salient such that said connecting plate of said ground tube body penetrates through and outside said port of said salient.

5. The improved corona generator structure according to claim 1, wherein
15 when said sealing lid is coupled within said insulating sleeve, the top surface of said sealing lid is substantially at a same level with the top surface of said insulating sleeve so as to facilitate application of said insulating layer.

6. The improved corona generator structure according to claim 1, wherein said high voltage electrode plate has a concave and cambered shape, and said spacer
20 uniformly engaged thereon allows a gap of a substantially equal height to be formed between every area of said high voltage electrode plate and said insulating sleeve so as to uniformly distribute said corona on said high voltage electrode plate and reduce sound volume produced from said corona when electricity conducts therethrough.

25 7. The improved corona generator structure according to claim 1, wherein

each of the both sides of said first and said second retaining sleeves is provided with a notch opposite to each other, a fixing post being extended from a notch thereof, said fixing post being provided with a connecting port for being coupled with a pedestal so as to be firmly coupled on a product to be implemented.

- 5 8. The improved corona generator structure according to claim 1, wherein the side peripheries of said first and said second retaining sleeves are provided with said multiple wind-guiding channels for guiding gases to flow.